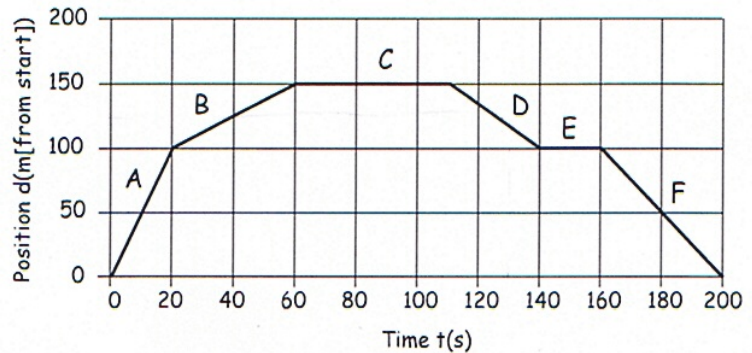


PART A: Complete the following statements using the following words: • constant • negative • slope (2)
 • curve • positive • zero

- ① The position-time graph for an object with a constant velocity is a straight line with constant slope.
- ② The slope of the position-time graph for an object moving at a constant velocity gives the value of the constant velocity.
- ③ On a position-time graph
 - ☞ a positive slope represents a positive velocity,
 - ☞ a zero slope represents a zero velocity, and
 - ☞ a negative slope represents a negative velocity.
- ④ The position-time graph for an object that is changing velocity is a curve.
- ⑤ The average velocity between any two points on a position-time graph = the slope of the straight line joining the two points.

PART B: Answer questions 1 to 4 below in the space provided. If more room is needed use the back of this sheet or a separate sheet. Answer question 5 on the back of this sheet.

The following graph shows the motion of an inspector on a refrigerator assembly line. Position zero is the start of the assembly line. Use positive to represent directions away from, and negative to represent directions toward, the start.



1. How far is the inspector from the starting point after: *(d-t graph - read off graph)*
 - (a) 20 s 100 m ✓
 - (b) 40 s 125 m ✓
 - (c) 80 s 150 s ✓
2. When is the inspector at the following positions: *(read off graph)*
 - (a) 50 m 10s & 180s ✓
 - (b) 150 m 60 - 110s ✓
 - (c) 125 m 40s & 125s ✓
3. What is the inspector's velocity during each of the lettered intervals? *(d-t - calculate slope)*
 - A 100/20 5 m/s ✓
 - B 50/20 2.5 m/s ✓
 - C horizontal 0 ✓
 - D -50/30 -1.7 m/s ✓
 - E horizontal 0 ✓
 - F -100/40 -2.5 m/s ✓
4. For the entire trip what is the inspector's:
 - (i) displacement 0 ✓
 - (ii) distance 300 m ✓
 - (iii) average velocity 0 ✓
 - (iv) average speed. 300/200 1.5 m/s ✓
5. On the back of this sheet describe the motion illustrated in the graph. *answers*